EPA COMMENTS WITH RESPONSES BY SSP&A

COMMENT: "As for the extraction procedure info, will wait to see how they respond to the comments in the email. I would expect/hope their lab has some type of written procedure for the extraction(s) they will perform. On a side note if you google sequential batch leaching tests an ASTM procedure pops us so I am guessing they have something somewhere they can reference. They don't have to use an EPA standard procedure (unless required by regulation or other programmatic requirement); it can be their internal procedure."

RESPONSE: Additional information regarding the extraction procedures and leaching tests have been added to the F&T analysis QAPP addendum. The F&T analysis QAPP addendum has an expanded suite of attachments from the primary laboratories undertaking the analyses, MCL and Eberline. In brief, the SBLT procedure is in essence a sequential application of the SPLP. Further literature could be provided if necessary.

COMMENT: Signature page. The signature page only provides for signatures from S.S. Papadopulos & Associates. What about space for signature by the site representative and Region 7?

RESPONSE: Additional recipients have been added to the F&T analysis QAPP addendum distribution list. Please provide any additional recipients from the US EPA who should be included (such as, the QAPP reviewer or others within the EPA organization).

COMMENT: 2.1 Project/Task Description: Samples will be collected from four borings in Area 1 and six borings from Area 2. How were specific boring locations to be sampled chosen?

RESPONSE: Details regarding the sampling design are provided in the previously submitted and approved work plans, primarily the Core Sampling (Phase 1B, 1C, and 2) Work Plan – Revision 1 (CSWP) prepared by Feezor Engineering., Inc. (FE). Initially, borings will be advanced for the general purpose of characterizing the presence of RIM. Suitable depth intervals (target intervals) at the location of each boring for retrieving RIM samples for all subsequent testing and analyses purposes will be determined via high gamma readings obtained from either downhole alpha/gamma scanning or alpha/gamma scanning of retrieved core, as defined in the CSWP and used previously at the site, prior to temporary storage . Samples retrieved for general analyses will be obtained directly from the corresponding core. However, samples required for purposes of the F&T analyses will be obtained at, and beneath, the targeted depth interval from a separate boring located in close proximity to the prior boring.

COMMENT: 2.1 Project/Task Description: Is there an SOP or other method reference for the sequential batch leaching tests noted in the last bullet on page 3?

RESPONSE: The sequential batch leaching tests (or, SBLT) described in the F&T analysis QAPP addendum are based upon the Synthetic Precipitation Leaching Procedure (SPLP)

detailed by EPA Method 1312. The SPLP is designed to determine the mobility of organic and inorganic analytes present in liquids, soils, and wastes. The SBLT is implemented as a sequential series of SPLP using differing Additional information regarding the SBLT has been added to the F&T analysis QAPP addendum, and Table 2 of the F&T analysis QAPP addendum lists the specific reagents proposed for each stage of the SBLT.

COMMENT: 2.1 Project/Task Description: What is the anticipated work schedule?

RESPONSE: The overarching field schedule for the project has been provided by Paul Rosasco, EMSI, previously. The turn-around-times for the F&T analyses are expected to range between 8 and 20 weeks on average: the shorter of these turn-around-times may be requested for some analytes, at increased cost, but in most cases will not impact the overall project schedule sufficiently to warrant the additional cost. The F&T modeling will actually commence in parallel with the commencement of the field program, so that the general model structure is ready to incorporate information and results from the F&T sampling as soon as they are available. Soon after all lab results for F&T samples are available, and the laboratory QA package has been received and QA'd, SSP&A will submit a data report presenting all analyses and results, and including all laboratory deliverables. The F&T modeling analyses that incorporate those results will be completed in the 12 to 16 weeks following submittal of this data report. The F&T modeling will be undertaken in parallel with the authoring of the FFS, so that the F&T work can support that FFS.

COMMENT: Table 1. For major cations and anions, this table includes Mn but the first bullet on page 3 does not. Which is correct?

RESPONSE: The bullets on Page 3 of the F&T analysis QAPP addendum have been corrected to reflect the addition of Mn.

COMMENT: 3.1 Precision. This section refers to an RPD for water samples but 2.1 only describes the collection of solid samples. Which is correct?

RESPONSE: Section 3.1 was revised to indicate a single acceptance criteria.

COMMENT: 3.2.1 Field Accuracy. What, if any field instruments are being used during this project (2.1 mentions gamma scans of core samples)?

RESPONSE: The use of field instruments to obtain measurements is discussed in the Core Sampling (Phase 1B, 1C, and 2) Work Plan – Revision 1 (CSWP) prepared by Feezor Engineering., Inc. (FE), and is beyond the scope of the F&T analysis QAPP addendum.

COMMENT: 3.2.1 Field Accuracy. This section refers to field blanks for groundwater samples but 2.1 only describes the collection of solid samples. Which is correct?

RESPONSE: The field accuracy section has been revised to remove the collection of groundwater and soil samples. Issues of field accuracy are outside the scope of the F&T analysis QAPP addendum, which focuses on laboratory analyses of the F&T samples.

COMMENT: 3.6 Sensitivity. The addendum describes how RLs below or equal to the task-specific target analysis goal or concentrations are needed and Table 1 does identify RLs; however, the task-specific target analysis goals or concentrations these RLs need to be equal to or below could not be found.

RESPONSE: The tables presented in the F&T analysis QAPP addendum have been properly supplemented with specific RLs for each analysis/analyte. The new Tables 3 and 4 provide the most detail in this regard.

COMMENT: Please note this addendum does not include headings for Instrument/Equipment Testing; Inspection and Maintenance Requirements; Inspection/Acceptance Requirements for Supplies and Consumables; Data Acquisition Requirements for Non-direct Measurements; and Reports to Management. It is expected that the same information presented for these sections in the previously approved plan would apply to this addendum. Please clarify.

RESPONSE: We concur that the information presented in the previously approved plan guide these items for this F&T analysis QAPP addendum, and as such these were not included in the F&T analysis QAPP addendum. The sections could be added, if requested, to cite the prior plans.

COMMENT: For the Westlake addendum, they include drinking water methods and water standard methods for the soil samples. Is this correct? Are they applying the water methods to extracts from the soil samples? (note: the water methods do not include extraction procedures for solid samples so would expect references to sample prep/extraction methods if this were the case.)

RESPONSE: The tables presented in the F&T analysis QAPP addendum have been properly supplemented with specific RLs for each analysis/analyte. The new Tables 3 and 4 provide the most detail in this regard.